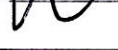


Work Order ID 143590 - 2

143590

Wednesday, March 16, 2016 2:01:40 PM

Item ID:	D4857-M	Accept	DAS 13 9-89	*N900040100*	Setup	Start	*NS1*
Revision ID:						Stop	*NS2*
Item Name:	Wiper Deflector						
Start Date:	3/16/2016	Start Qty:	10.00				
Required Date:	4/15/2016	Req'd Qty:	10.00				
Reference:							
Approvals:	Process Plan: 	Date:	Tooling:	Date:	Run	Start	*NR1*
	QC: 	Date:	SPC (Y/N):	Date:		Stop	*NR2*

Handwritten: 110X JUN 29 2016
10
10
Split-2-

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr
D4857	F

100 0.00
100
Purchasing
Purchasing
Memo 31722
Issue P/O:
Possible supplier: CARBON BY DESIGN
Manufacture as per dwg D4857-M
Prime Deflector as per dwg (SEE NOTE 4)
Certificate of Conformity release note is required.

Handwritten: L 16-0316 11

110 0.00
110
Packaging
Packaging
Memo
Receive & Inspect for Damage & Mat'l Certs

Handwritten: 10x SP17-01-16

Work Order ID 143590

143590

Page 2

Wednesday, March 16, 2016 2:01:40 PM

Item ID: D4857-M Accept *N900040100* Setup Start *NS1*
 Revision ID: Stop *NS2*
 Item Name: Wiper Deflector
 Start Date: 3/16/2016 Start Qty: 10.00 *10* Cust Item ID:
 Required Date: 4/15/2016 Req'd Qty: 10.00 *10* Customer:
 Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start *NR1*
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120 *120* QC Quality Control	QC5- Inspect part completeness to step on W/O Memo	0.00 0.00				10			DAS 38 9-89 JAN 20 2017
130 *130* Packaging Packaging	Identify as per dwg & Stock Location: <u>CK136A</u> Memo	0.00 0.00				10			DAS 6 9-89 JAN 24 2017
140 *140* QC Quality Control	QC21- Final Inspection - Work Order Release Memo	0.00 0.02							DAS 21 9-89 JAN 25 2017 MF 17-1-24

Picklist Print

Wednesday, March 16, 2016 2:01:39 PM

Page 1 / 1

Work Order ID: 143590

143590

Parent Item: D4857-M

D4857-M

Parent Item Name: Wiper Deflector

Start Date: 3/16/2016

Required Date: 4/15/2016

Start Qty: 10.00

Required Qty: 10.00

Comments: IPP REV:A 14.05.21 NEW ISSUE DD VERF:JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

D4857-P

Purchased

No

Each

5.0000

10

D4857-P

10x SP17-01-16.

Wiper Deflector

Location

Loc Qty

Loc Code

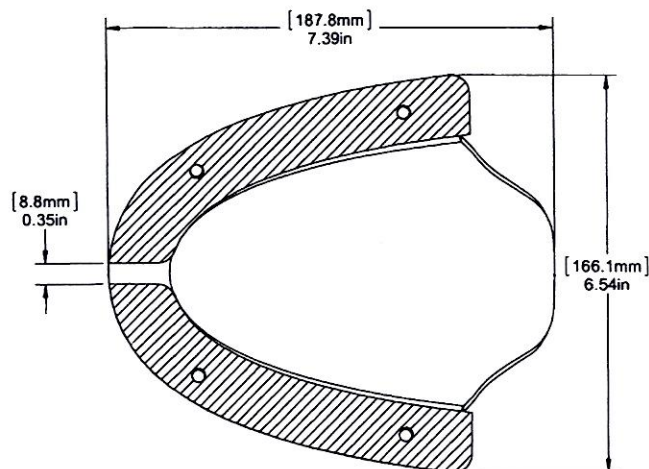
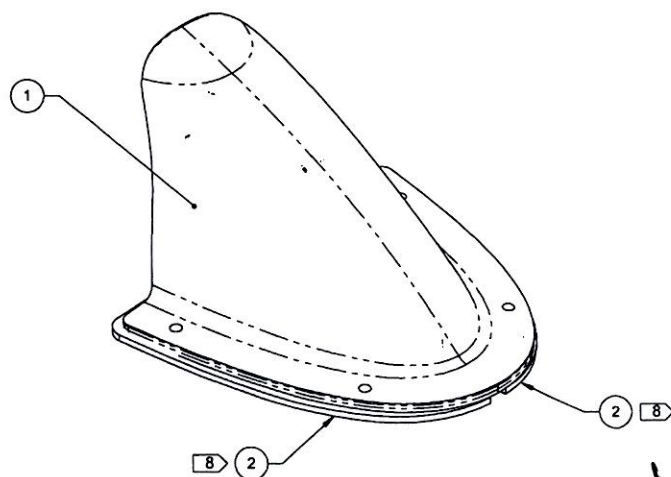
ST

5

m140559

5

ITEM	QTY -041	P/N	DESCRIPTION
	X	D4857-041	WIPER DEFLECTOR ASSY
1	1	D4857-1	WIPER DEFLECTOR
2	2	D4944-1	GASKET



D4857-041 WIPER DEFLECTOR ASSY

RELEASED

2015 JUN 08

ECN 15-582

u/c 143590

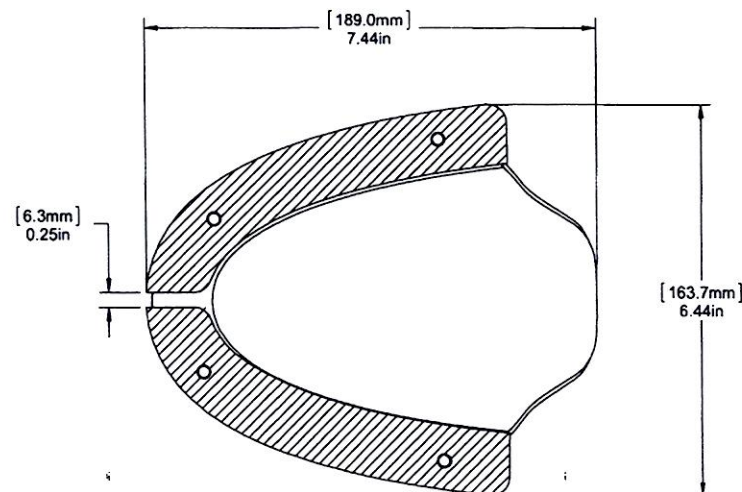
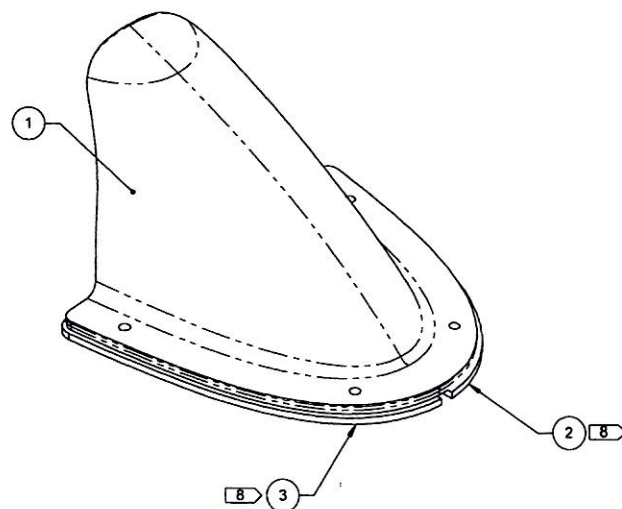
NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED, ALL METRIC DIMENSIONS ARE REFERENCE DIMENSIONS.
- 5) BREAK SHARP EDGES: N/A
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N D4857-041, REVISION, BATCH NUMBER, AND DATE OF MANUFACTURE, AS PER QSI 044 METHOD 6.1
- 7) WEIGHT: 0.38 lbs (0.17 kg)
- 8) BOND D4944-1 GASKETS TO EDGE OF PART USING DOW CORNING 736 ADHESIVE

F	SHT 1 ADDED -041, ADDED D4857-2M (SHEET 8) AND RELABELED D4857-M TO D4857-1M (ZN B5-7); UPDATED D4757-044 (ZN B5-3); REVISED NOTES 1, 8 AND 10 (ZN A8-4, ZN A8-5, ZN A8-6, ZN A8-7, ZN A8-8); UPDATE PART WEIGHTS	AK / AJS	15.06.03
E	REVISE NOTE 5) (ZN A8-1, A8-2, A8-3); AND NOTE 8) (ZN A8-1, A8-2, A8-3)	AK	14.06.05
D	ADDED D4857-043 (ZN C7-1), D4857-044 (ZN C7-2), D4857-3 (ZN C7-4), D4857-4 (ZN C7-5) AND D4857-M (ZN C7-5)	AK	14.05.13
C	ADDED 4 MOUNTING HOLES	DW	13.12.09
B	REVISED BOM, DRAWING VIEWS, NOTES	PB	13.08.13
A	NEW RELEASE	DB	13.05.23
REV.	DESCRIPTION	BY	DATE
DESIGN	DW	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	AJS		
CHECKED	CP	DRAWING NO.	REV. F
MFG. APPR.	DD	D4857	SHEET 1 OF 8
APPROVED	WM	TITLE	SCALE
DE APPR.	DS	WIPER DEFLECTOR	NTS
DATE	15.06.03	COPYRIGHT © 2013 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

APPROVED

ITEM	QTY -043	P/N	DESCRIPTION
	X	D4857-043	WIPER DEFLECTOR ASSEMBLY, LH
1	1	D4857-3	WIPER DEFLECTOR LH
2	1	D5117-1	GASKET
3	1	D5117-3	GASKET



D4857-043 WIPER DEFLECTOR ASSEMBLY, LH

RELEASED

2015 JUN 08

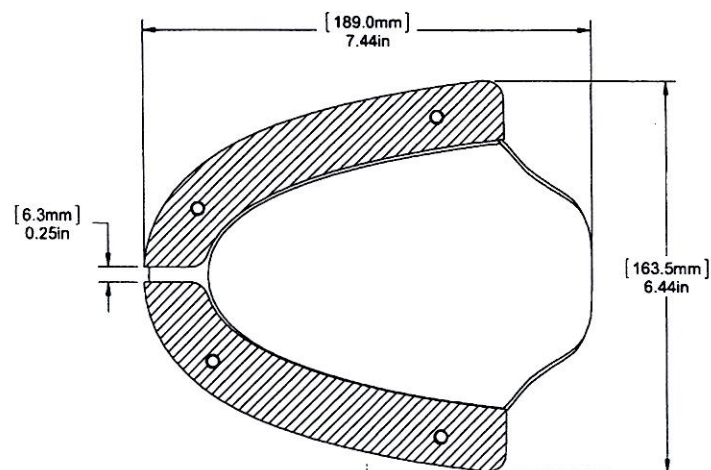
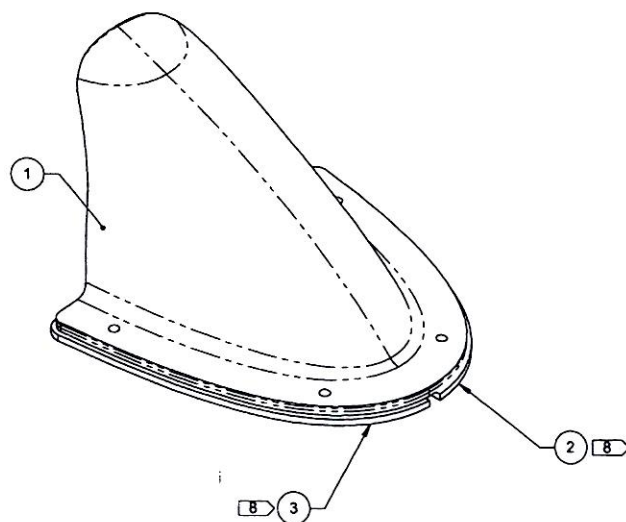
NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED, ALL METRIC DIMENSIONS ARE REFERENCE DIMENSIONS.
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N D4857-043, REVISION, BATCH NUMBER, AND DATE OF MANUFACTURE, AS PER QSI 044 METHOD 6.1
- 7) WEIGHT: 0.38 lbs (0.17 kg)
- 8) BOND D5117-1/-3 GASKETS TO EDGE OF PART USING DOW CORNING 736 ADHESIVE

APPROVED

DESIGN		DART AEROSPACE LTD	
DRAWN	AJS	HAWKESBURY, ONTARIO, CANADA	
CHECKED	CP	DRAWING NO.	REV. F
MFG. APPR.	DD	D4857	SHEET 2 OF 8
APPROVED	WM	TITLE	SCALE
DE APPR.	DS	WIPER DEFLECTOR	NTS
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ITEM	QTY -044	P/N	DESCRIPTION
	X	D4857-044	WIPER DEFLECTOR ASSEMBLY, RH
1	1	D4857-4	WIPER DEFLECTOR
2	1	D5117-5	GASKET
3	1	D5117-7	GASKET



D4857-044 WIPER DEFLECTOR ASSEMBLY, RH

RELEASED

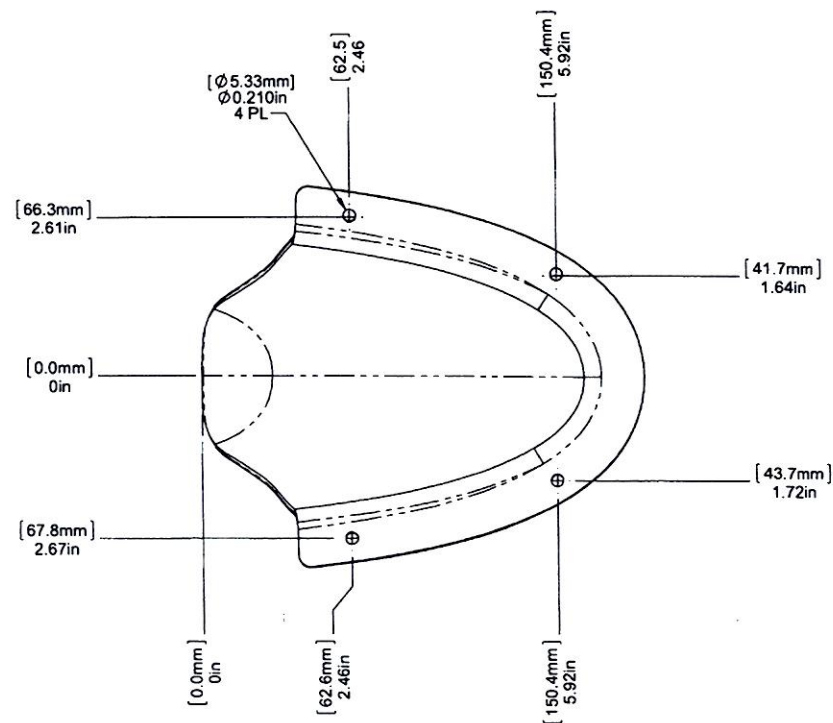
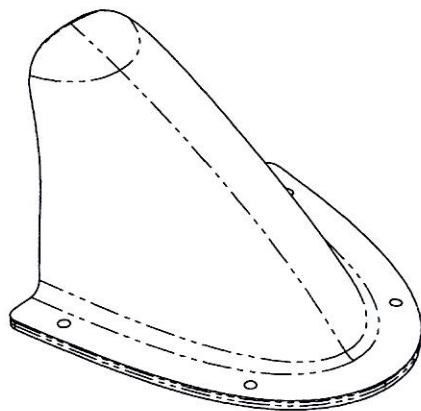
2015 JUN 08

NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED, ALL METRIC DIMENSIONS ARE REFERENCE DIMENSIONS.
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N D4857-044, REVISION, BATCH NUMBER, AND DATE OF MANUFACTURE, AS PER QSI 044 METHOD 6.1
- 7) WEIGHT: 0.38 lbs (0.17 kg)
- 8) BOND D5117-5/-7 GASKETS TO EDGE OF PART USING DOW CORNING 736 ADHESIVE

APPROVED

DESIGN	DW	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	AJS		
CHECKED	CP	DRAWING NO.	REV. F
MFG. APPR.	DD	D4857	SHEET 3 OF 8
APPROVED	WM	TITLE	SCALE
DE APPR.	DS	WIPER DEFLECTOR	NTS
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D4857-1 WIPER DEFLECTOR

RELEASED

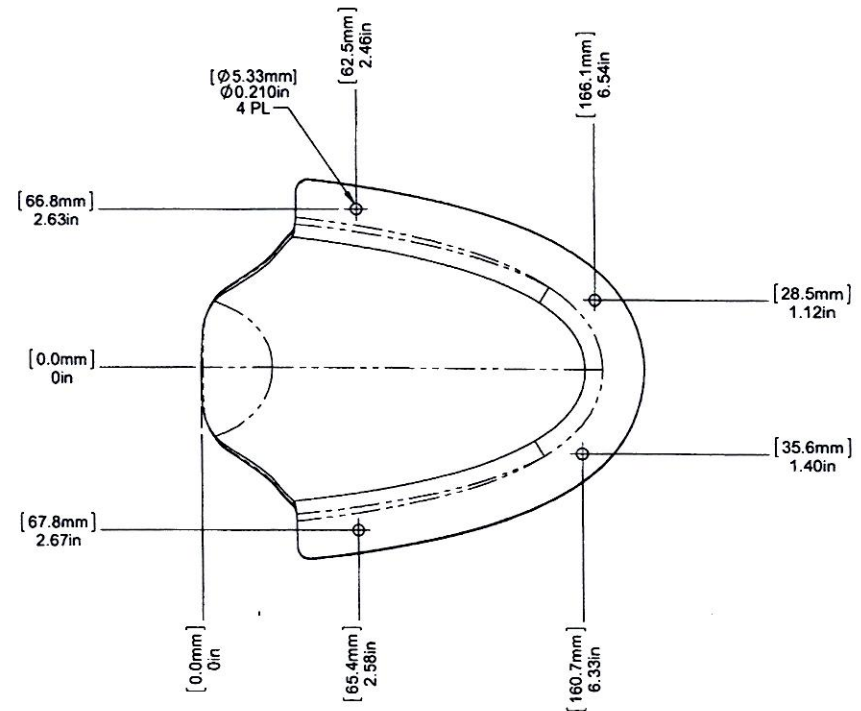
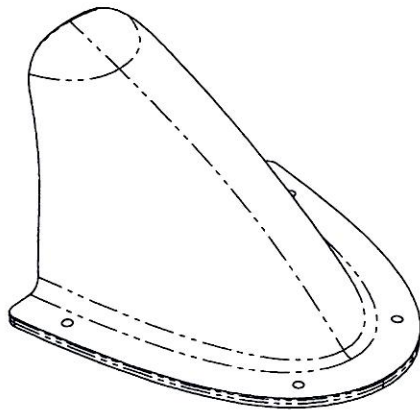
2015 JUN 08

NOTES:

- 1) MATERIAL: MADE FROM D4857-M
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED, ALL METRIC DIMENSIONS ARE REFERENCE DIMENSIONS.
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 0.35 lbs (0.16 kg)
- 8) PART DIMENSIONS CONTROLLED BY CAD MODEL FILE D4857-1-F.IGES

APPROVED

DESIGN	DW	DART AEROSPACE LTD	
DRAWN	AJS	HAWKESBURY, ONTARIO, CANADA	
CHECKED	CP	DRAWING NO.	REV. F
MFG. APPR.	DD	D4857	SHEET 4 OF 8
APPROVED	WM	TITLE	SCALE
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D4857-3 WIPER DEFLECTOR, LH

RELEASED

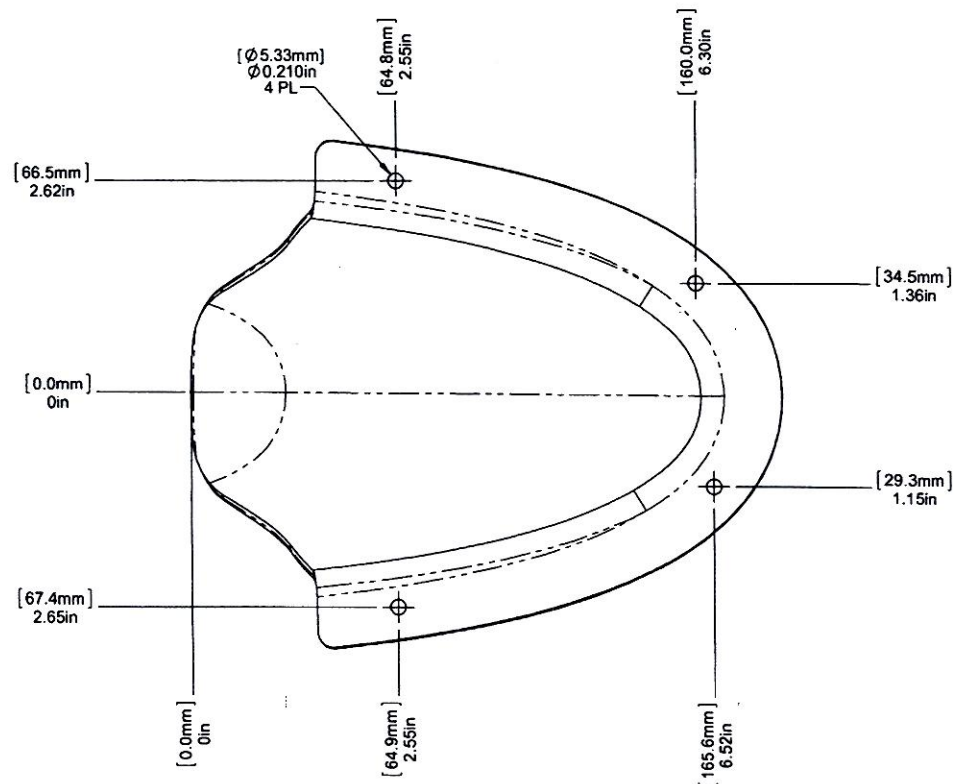
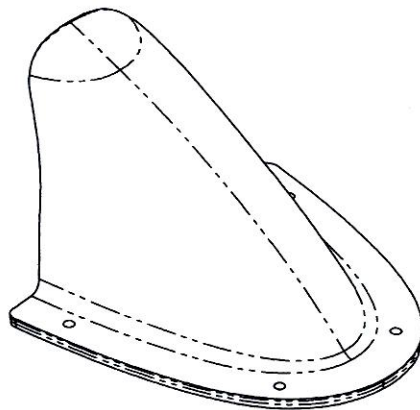
2015 JUN 08

NOTES:

- 1) MATERIAL: MADE FROM D4857-M
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED, ALL METRIC DIMENSIONS ARE REFERENCE DIMENSIONS.
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 0.35 lbs (0.16 kg)
- 8) PART DIMENSIONS CONTROLLED BY CAD MODEL FILE D4857-3-F.IGES

APPROVED

DESIGN	DW	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	AJS		
CHECKED	CP	DRAWING NO.	REV. F
MFG. APPR.	DD	D4857	SHEET 5 OF 8
APPROVED	WM	TITLE	SCALE
DE APPR.	DS	WIPER DEFLECTOR	NTS
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D4857-4 WIPER DEFLECTOR, RH

RELEASED

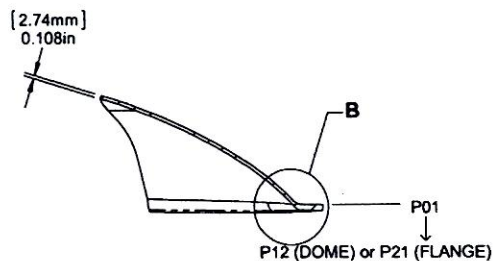
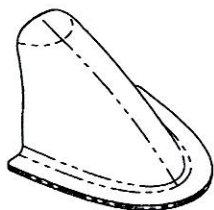
2015 JUN 08

NOTES:

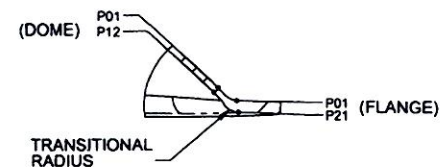
- 1) MATERIAL: MADE FROM D4857-M
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED, ALL METRIC DIMENSIONS ARE REFERENCE DIMENSIONS.
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 0.35 lbs (0.16 kg)
- 8) PART DIMENSIONS CONTROLLED BY CAD MODEL FILE D4857-4-F.IGES

APPROVED

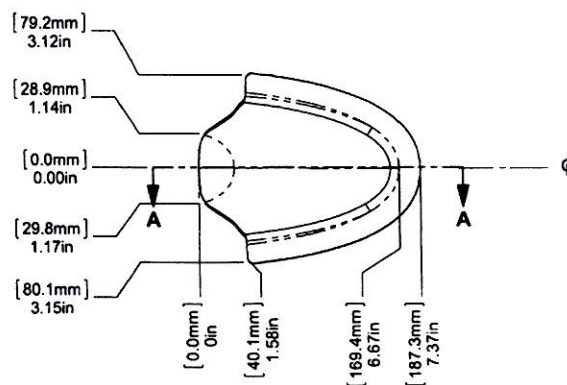
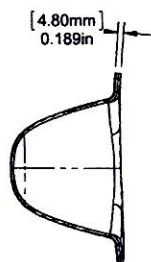
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DRAWN	AJS		
CHECKED	CP	DRAWING NO.	REV. F
MFG. APPR.	DD	D4857	SHEET 6 OF 8
APPROVED	WM	TITLE	SCALE
DE APPR.	DS	WIPER DEFLECTOR	NTS
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SECTION A-A



DETAIL B



D4857-M WIPER DEFLECTOR

RELEASED

2015 JUN 08

NOTES:

- 1 MATERIAL: KEVLAR #285/353 4H SATIN, EPOXY PREPREG, 250°F CURE, 40% R/C
- 2 MATERIAL: CARBON FIBER PREPREG, ALDILA PREPREG SYSTEM 3K2X2-FR250-204/40 T300,
- 3 MATERIAL: ALDILA #120 E-GLASS AR250 WITH 48% RC;
- 4 FINISH: PRIMER IAW MIL-P-85582, 2-7 MIL MAX.
- 5 TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 6 UNITS: INCHES UNLESS OTHERWISE NOTED, ALL METRIC DIMENSIONS ARE REFERENCE DIMENSIONS.
- 7 BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 8 IDENTIFICATION: N/A
- 9 WEIGHT: 0.35 lbs (0.16 kg)
- 10 PART DIMENSIONS CONTROLLED BY CAD MODEL FILE D4857-M-F.IGES
- 11 SEE SHEET 8 FOR LAYUP SCHEDULE. MANUFACTURE IAW MPP 145. CURE 250°F FOR 4 HOURS.

APPROVED

DESIGN	DW	DART AEROSPACE LTD	
DRAWN	AJS	HAWKESBURY, ONTARIO, CANADA	
CHECKED	CP	DRAWING NO.	REV. F
MFG. APPR.	DD	D4857	SHEET 7 OF 8
APPROVED	WM	TITLE	SCALE
DE APPR.	DS	WIPER DEFLECTOR	NTS
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Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID PO31722

Purchase Order Date 3/16/2016

PO Print Date 6/29/2016

Page Number 1 of 2

Order From :

VU-FDC001

Ship To : DART AEROSPACE LTD

1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

FDC COMPOSITES INC.
45 CHEMIN DE L'AEROPORT
LOCAL 26
ST. JEAN SUR RICHELIEU, QUEBEC J3B 7B5

E-MAILED

Contact Name

Vendor Phone 450-357-1344 Ext 303

Ship To Contact

Ship To Phone

Ship Via: To Be Announced

Ship Acct:

Buyer

Linda Lacelle

Customer POID

Customer Tax #

Terms

Currency

FOB

10127-2607

Net 30

USD

Destination-Collect

JUN 29 2016

Line Nbr	Reference Vendor Part Number	Description/ Mfg ID	Req Date/ Taxable	CD	Req Qty/ Unit of Measure	PO Unit Price	Extended Price
	Line Comments		Promise Date				
	Delivery Comments						
1	D4857-P	Wiper Deflector	8/30/2016 Yes 8/30/2016	FN	11.00 Each	\$775.00	\$
	MANUFACTURE PER DRWG D4857-M REV.F PRIME DEFLECTOR PER DRWG(SEE NOTE 4) B143590						
2	D4857-P	Wiper Deflector	10/20/2016 Yes 10/20/2016	FN	11.00 Each	\$775.00	\$8,525.00
	MANUFACTURE PER DRWG D4857-M REV.F PRIME DEFLECTOR PER DRWG(SEE NOTE 4) B143591						

Recd 1X SP/6-10-2-17

Recd 10X SP/17-01-16
Line Total: \$8,525.00

Recd 5X SP/17-01-16
Line Total: \$8,525.00

PO Instructions: QUOTE NO. 1294

Note:

6/29/2016

FDC Composites inc.
45, Chemin de L'Aéroport
Local 26
Saint-Jean-sur-Richelieu (QC)
J3B 7B5 **Tel. : 450 357-1344**

Shipping Order 09/01/2017

Order : 5764 Rev B
Reference : PO #31722/1
Ship : FOB USINE FDC PLANT

Customer: DART US

Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON
K6A 1K7

Ship To
Dart Aerospace
1270 Aberdeen Street
Hawkesbury, ON
K6A 1K7 **Tel. : 1 613 632-9577**

Item No.	Description	Qty	Qty. Delivere	B/O Qty
D4857-P	Wiper Deflector PO item: 31722/1 Lot: 2016-10-18 FDC ID: DAE012-001 As per DRWG: D4857-M Rev. F <u>B143590</u> 50% of 8 525.00\$ Net 30 days Lot: 2016-11-16 Lot: 2016-11-17 Lot: 2016-11-29 Lot: 2016-11-30 Lot: 2016-12-01 Lot: 2016-12-02 Lot: 2016-12-08 Lot: 2016-12-07 Lot: 2016-12-07 Lot: 2016-12-14 FDC ID: DAE012-002 ✓ FDC ID: DAE012-003 ✓ FDC ID: DAE012-004 ✓ FDC ID: DAE012-005 ✓ FDC ID: DAE012-006 ✓ FDC ID: DAE012-007 ✓ FDC ID: DAE012-009 ✓ FDC ID: DAE012-010 ✓ FDC ID: DAE012-011 ✓ FDC ID: DAE012-012 ✓	11	10 ✓	0

SP17-01-16

Shipping : _____
Package No : _____
Merchandise Received: _____

Ref. : _____

CERTIFICATE of CONFORMITY

Customer Name: Dart Aerospace.

Customer P/O Number: 31722

Revision: NC

<u>PO Item</u>	<u>Qty</u>	<u>Part number ID</u>	<u>Description</u>	<u>Dwg number ID</u>	<u>Delivery Number</u>	<u>FDC ID</u>	<u>Lot</u>
1	10	D4857-P	Wiper Deflector	D4857-M Rev F	B143590	DAE012-002 ✓ DAE012-003 ✓ DAE012-004 ✓ DAE012-005 ✓ DAE012-006 ✓ DAE012-007 ✓ DAE012-009 ✓ DAE012-010 ✓ DAE012-011 ✓ DAE012-012 ✓	2016-11-16 2016-11-17 2016-11-29 2016-11-30 2016-12-01 2016-12-02 2016-12-08 2016-12-07 2016-12-07 2016-12-14

I hereby certify that the workmanship, material and the processes used in the manufacture of the above part(s) supplied are in accordance with the requirements of the applicable Purchase Order.

Signature: Marjorie G.
Marjorie Geoffrion, Quality Inspector

Date: 2017-01-09